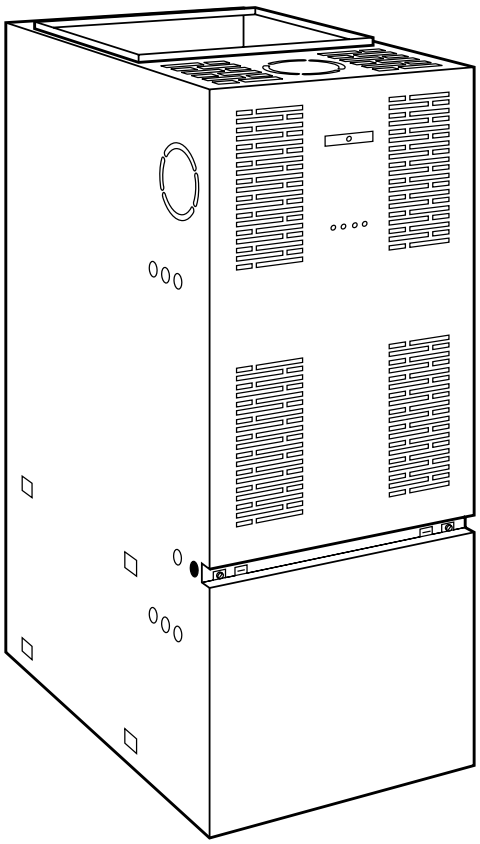
Carrier®
HEATING & COOLING

Product Data

58CMR
Multipoise Oil Furnace

Series 100
Input Capacities: 70,000 thru 154,000 Btuh



The Latest in Oil Furnace Technology

The model 58CMR combines high efficiency and quiet operation with the latest oil heating technology. The 58CMR is available in 2 sizes. Each size can be fired at 3 different rates by a simple nozzle change. Unit 58CMR105 covers input ranges from 70,000 to 105,000 Btuh. Unit 58CMR120 covers input ranges from 119,000 to 154,000 Btuh. The furnace design is a multipoise style for upflow, downflow, and horizontal applications.

The components of the 58CMR are the finest in the industry. The unit uses a Riello oil burner with a Honeywell fan timer control.

The 58CMR is a standard part of a quality-built home. This energy-efficient furnace will provide years of quality service to home builders and homeowners alike.

As with other Carrier furnaces, this model is designed to work as part of a total home comfort system which includes elements for cooling, air cleaning, humidification, ventilation, and zoning.

58CMR FEATURES/ BENEFITS

Casing — Made of 20 gauge powder painted steel for years of durability and attractiveness. The cabinet features a reversible door, ensuring ease of service access even in downflow applications.

Certifications — The 58CMR unit is UL and ULC certified. The efficiency is GAMA efficiency rating certified.

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Warranties — Limited Lifetime Warranty on combustion chamber/heat exchanger assembly. Five-year Warranty on Riello burner. Two-year Warranty on Honeywell ignition control. Contact your dealer for details.

Combustion Products Venting — Top or side flue outlets. Unit may be vented using Type L vent material and a factory-built metal or masonry chimney. The unit may also be sidewall vented with an approved power venter.

Insulation and Soundproofing — A unique silencer baffle along with insulated walls and rubber blower mounts, efficiently captures most combustion noise and vibrations and makes this unit one of the quietest on the market.

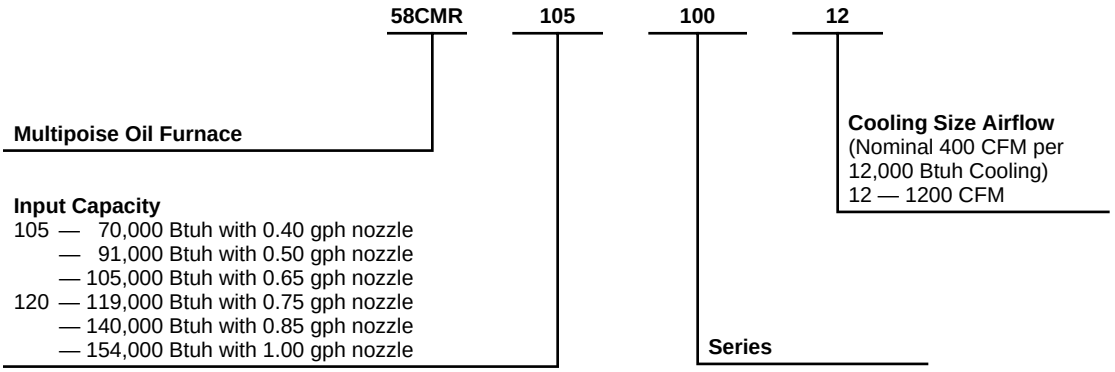
Adjustable Blower Speed — Four-speed blower for precise airflow selection of heating or cooling operation.

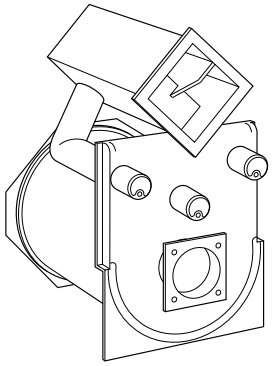
Constant Low-Speed Blower Switch —Allows continual low-speed air circulation through the home to maximize comfort while maintaining efficiency. Air is constantly filtered and stagnant air is avoided. This option can be controlled by the homeowner.

Riello Oil Burner and Honeywell Controls —High quality Riello oil burner allows safe and efficient combustion of oil. The Honeywell fan timer board provide for reliable operation and easy connection of thermostat and accessory wiring.

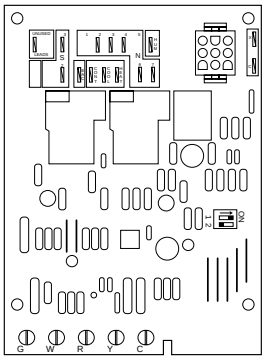
Combustion Chamber/Heat Exchanger —Composed mainly of stainless and aluminized steel, the unique combination combustion chamber/heat exchanger resists corrosion, overheating, and deterioration. Its heat transfer properties make it energy efficient. All seams are tightly welded for leak-free operation.

Model number nomenclature

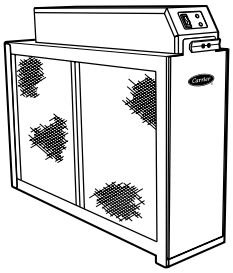

58CMR
105
100
12
Multipoise Oil Furnace
Input Capacity
105 — 70,000 Btuh with 0.40 gph nozzle
— 91,000 Btuh with 0.50 gph nozzle
— 105,000 Btuh with 0.65 gph nozzle
120 — 119,000 Btuh with 0.75 gph nozzle
— 140,000 Btuh with 0.85 gph nozzle
— 154,000 Btuh with 1.00 gph nozzle
Series
Cooling Size Airflow
(Nominal 400 CFM per
12,000 Btuh Cooling)
12 — 1200 CFM



COMBUSTION CHAMBER/ HEAT EXCHANGER



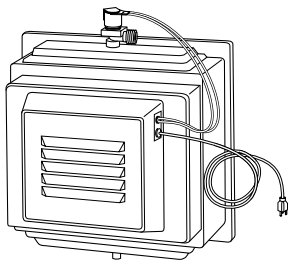
CONTROL CENTER



ELECTRONIC OR MECHANICAL AIR CLEANER

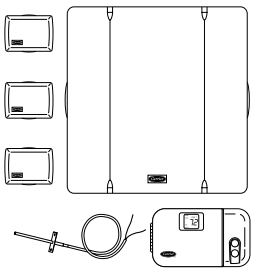
Cleans the air of smoke, dirt, and many pollens commonly found. Saves decorating and cleaning expenses by keeping carpets, furniture, and drapes cleaner.

Electronic air cleaner is shown.



HUMIDIFIER

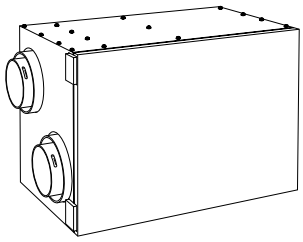
By adding moisture to winter-dry air, a Carrier humidifier can often improve comfort and keeps woodwork, wallpaper, and paint in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.



CONTROLS: THERMOSTATS AND ZONING

Available in programmable and non-programmable models, Carrier thermostats maintain a constant, comfortable temperature level in the home.

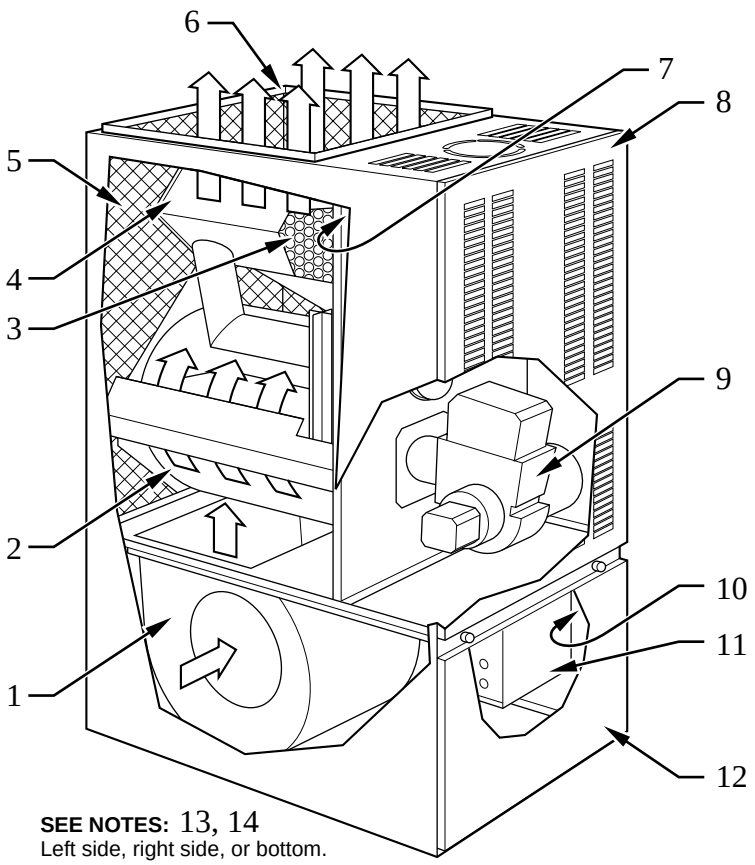
For the ultimate in home comfort, Carrier's 2, 4, and 8 zone systems allow temperature control of individual "zones" of the home. This is accomplished through a series of electronic dampers and remote room sensors. The 4-zone system is shown.



ENERGY/HEAT RECOVERY VENTILATOR

Carrier's energy or heat recovery ventilators exhaust stale indoor air and provide fresh outdoor air to the home while minimizing heat loss and humidity level. Especially useful for today's tighter constructed houses.

Energy recovery ventilator is shown.



SEE NOTES: 13, 14
Left side, right side, or bottom.

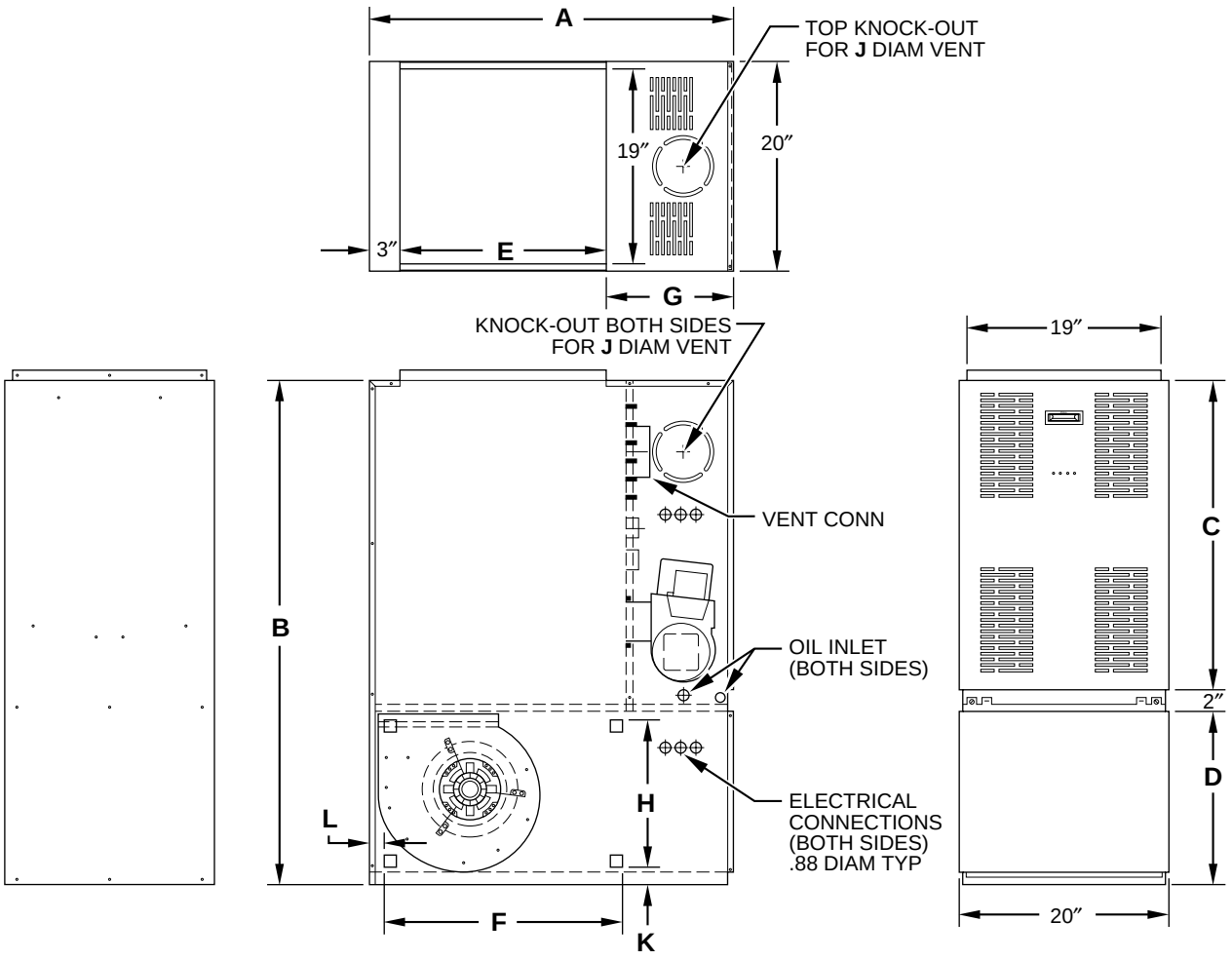
1. Heavy-duty blower circulates air across the heat exchanger to transfer heat into the home.
2. Stainless steel combustion chamber/primary heat exchanger.
3. Unique silencer system reduces combustion noise.
4. Heat exchanger designed and shaped to efficiently transfer heat from furnace into the home.
5. Fully insulated internal walls to minimize heat loss, and reduce sound.
6. Supply-air plenum.
7. High limit control to prevent overtemperature operation.
8. Reversible door provides easy access to burner and controls.
9. High-performance oil burner.
10. Manual switch to allow user control of constant low-speed blower operation.
11. Adjustable electronic fan timer control (inside) has low-voltage electrical terminal strip for easy connection of thermostat, cooling control, electronic air cleaner, and humidifier.
12. Access door to blower.
13. Air filter (field supplied).
14. Return-air plenum.

Carrier accessories

UNIT SIZE		105-12	120-20
ELECTRONIC AIR CLEANER (EAC)		Model AIRA	
MECHANICAL AIR CLEANER		Model MACA	
AIR CLEANER CABINET		Model MPKA	
HUMIDIFIER		Model HUM	
HEAT RECOVERY VENTILATOR		Model HRV	
ENERGY RECOVERY VENTILATOR		Model ERV	
THERMIDISTAT® CONTROL — NON-PROGRAMMABLE		TSTATCCPRH01-B	
THERMIDISTAT® CONTROL — PROGRAMMABLE		TSTATCCPRH01-B	
THERMOSTAT — NON-PROGRAMMABLE		For Use with 1-Speed Air Conditioner — TSTATCCNAC01-B For Use with 1-Speed Air Conditioner — TSTATCCBAC01-B For Use with 2-Speed Air Conditioner — TSTATCCN2S01-B For Use with 2-Speed Air Conditioner — TSTATCCNB001 For Use with 1-Speed Heat Pump — TSTATCCPRH01-B For Use with 2-Speed Heat Pump — TSTATCCPRH01-B	
THERMOSTAT — PROGRAMMABLE		For Use with 1-Speed Air Conditioner — TSTATCCPAC01-B For Use with 1-Speed Air Conditioner — TSTATCCSAC01 For Use with 2-Speed Air Conditioner — TSTATCCP2S01-B For Use with 2-Speed Air Conditioner — TSTATCCPF101 For Use with 2-Speed Air Conditioner — TSTATCCPF701 For Use with 2-Speed Air Conditioner — TSTATCCPS101 For Use with 2-Speed Air Conditioner — TSTATCCPS701 For Use with 2-Speed Air Conditioner — TSTATCCPRF/REC01 For Use with 1-Speed Heat Pump — TSTATCCPDF01-B For Use with 1-Speed Heat Pump — TSTATCCPRH01-B For Use with 2-Speed Heat Pump — TSTATCCPDF01-B For Use with 2-Speed Heat Pump — TSTATCCPRH01-B	
COIL CASING			
COOLING CAPACITY		KLAOC0101DET Use coil shown below	KLAOC0201DET Use coil shown below
	1.5 -2 TONS A/C	CC5AXW024017	CC5AXW042024
	2.5 TONS A/C	CC5AXW030017	CC5AXW048024
	3 TONS A/C	CC5AXA036017	CC5AXA060024
ZONING			
	2 ZONE	ZONECC2KIT01-B	
	4 ZONE	ZONECC4KIT01-B	
	8 ZONE	ZONECC8KIT01-B	
OIL NOZZLE KIT (QTY. 50)			
NOZZLE FIRING RATE	0.40 GPH-70,000 BTUH	KLANZ0750040	—
	0.50 GPH-91,000 BTUH	KLANZ0150050	—
	0.65 GPH-105,000 BTUH	KLANZ0250065	—
	0.75 GPH-119,000 BTUH	—	KLANZ0350075
	0.85 GPH-140,000 BTUH	—	KLANZ0450080
	1.00 GPH-154,000 BTUH	—	KLANZ0550100

As Factory Shipped.

Dimensions



DIMENSIONS (IN.)

UNIT SIZE	A	B	C	D	E	F	G	H	J	K	L
105-12	35	48-3/4	31-1/4	16-5/8	20	22	12	14	5	1-1/2	1-3/4
120-20	39-1/2	53	33-1/4	18-3/4	24	28	12-19/32	16	6	1-5/8	1-1/2

Physical data

UNIT SIZE		105-12			120-20		
INPUT (Btuh)		70,000	91,000	105,000	119,000	140,000	154,000
HEATING CAPACITY (Btuh)*		57,000	74,000	85,000	97,000	115,000	126,000
NOZZLE		0.40 — 70A	0.50 — 70W	0.65 — 70W	0.75—70B	0.85—70W	1.00—70W
FIRING RATE (GPH)†		0.50	0.65	0.75	0.85	1.00	1.10
AFUE%	**Upflow**	80.0	80.0	80.0	80.0	80.0	80.0
	Downflow	80.0	80.0	80.0	80.0	80.0	80.0
	Horizontal	80.5	80.5	80.5	80.5	80.5	80.5
OIL PUMP STAGES/PUMP PRESSURE (PSIG)		1/160	1/170	1/135	1/130	1/140	1/125
HEATING TEMP RISE °F		55 — 85	55 — 85	55 — 85	55 — 85	55 — 85	55 — 85
COOLING CFM @ 0.5-IN. WC STATIC PRESSURE		1250	1250	1250	1865	1865	1865
HEATING CFM @ 0.2-IN. WC STATIC PRESSURE		840	1130	1425	1555	1890	2080
RECOMMENDED HEATING BLOWER SPEED		Med-Low	Med-High	High	Med-Low	Med-High	High
SHIPPING WEIGHT (Lb)		230	230	230	275	275	275
BURNER MODEL (3450 RPM)**		Riello 40-F3	Riello 40-F3	Riello 40-F3	Riello 40-F5	Riello 40-F5	Riello 40-F5

* Capacity and AFUE in accordance with U.S. Government DOE test procedures.

As Factory Shipped.

†For Rating Purposes Only.

AIR DELIVERY—CFM (With Filter)

UNIT SIZE	BLOWER MOTOR HP	SPEED	EXTERNAL STATIC PRESSURE (In. wc)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
105-12	1/3 PSC	High	1425	1350	1305	1250	1170	1030	925	805
		Med-High	1130	1045	1000	950	885	820	745	670
		Med-Low	840	810	770	740	685	635	580	500
		Low	725	730	740	745	730	715	690	665
120-20	3/4 PSC	High	2080	2040	1965	1865	1700	1575	1475	1335
		Med-High	1890	1860	1770	1675	1550	1450	1330	1215
		Med-Low	1555	1475	1395	1320	1210	1135	1050	940
		Low	1220	1165	1080	1000	925	855	780	655

Clearance to combustibles

UNIT APPLICATION		UPFLOW	DOWNFLOW	HORIZONTAL
SIDES	Furnace	0	2	2
	Supply Plenum and Warm-Air Duct Within 6 ft of Furnace	1	2	1
BACK	Furnace	0	1	0
TOP	Furnace Casing or Plenum	2	2	2
	Horizontal Warm-Air Duct Within 6 ft of Furnace	2	2	3
BOTTOM	Furnace	0	0*	0*
FLUE PIPE	Horizontally or Below Pipe	4	4	4
	Vertically Above Pipe	9	9	9
FRONT		8	8	24

* For combustible floor, use approved accessory subbase.

NOTE: Adequate service clearance should be provided over and above these dimensions as required.

Performance data

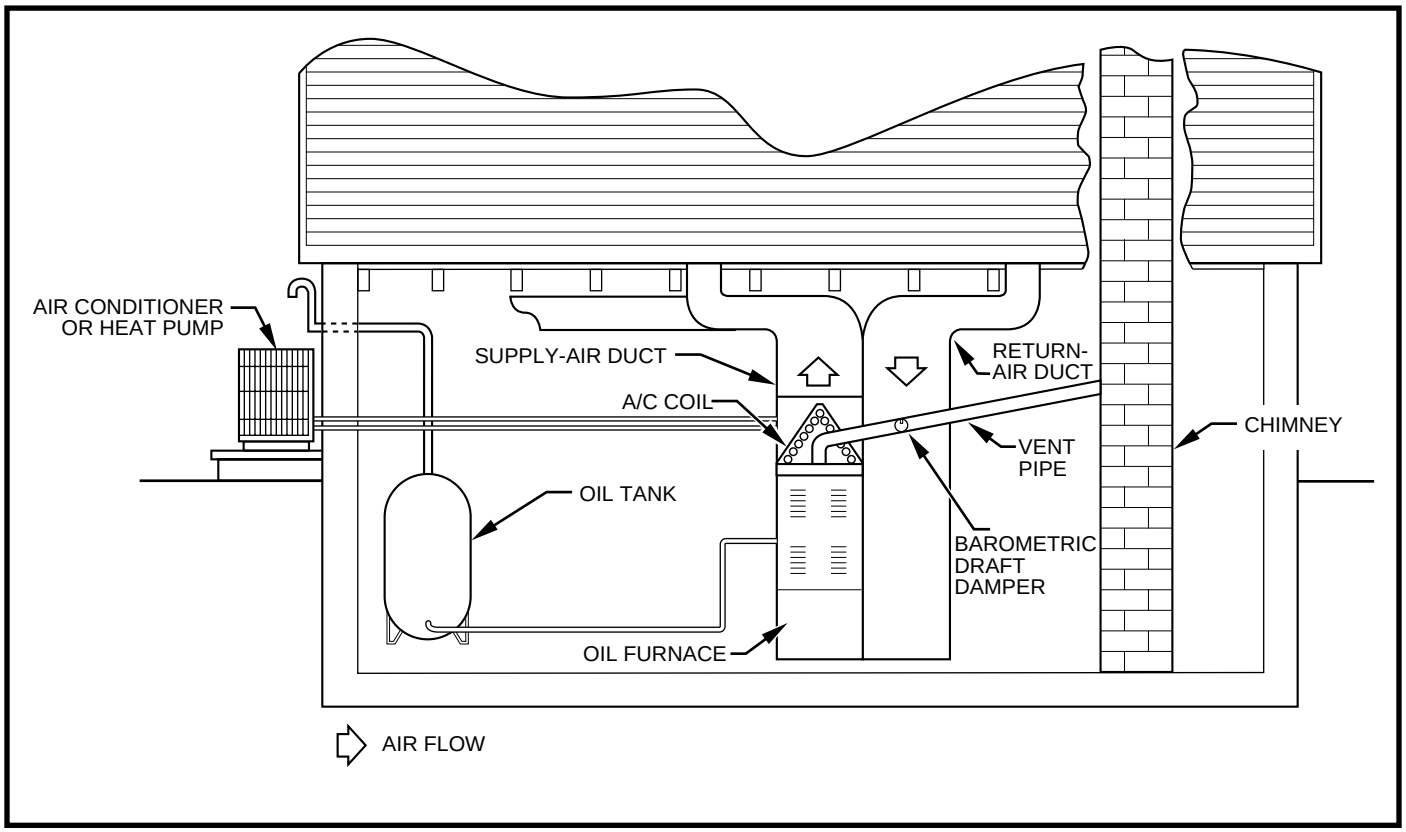
UNIT SIZE	105-12	120-20
DIRECT-DRIVE MOTOR Hp (PSC)	1/3	3/4
MOTOR FULL LOAD AMPS	6.2	9.5
RPM (Nominal) — SPEEDS	1075 — 4	1075 — 4
BLOWER WHEEL DIAMETER X WIDTH (In.)	10 X 10	12 X 10
FILTER SIZE (In.) — (Disposable, Field Supplied)	16 X 24 or 25 X 1	20 X 30 X 1

Electrical data

UNIT SIZE		105-12	120-20
UNIT VOLTS — HERTZ — PHASE		115 — 60 — 1	115 — 60 — 1
OPERATING VOLTAGE RANGE (Minimum — Maximum)*		104 — 132	104 — 132
MAXIMUM UNIT AMPS		12.2	15.7
MINIMUM WIRE SIZE (AWG)		14	12
MAXIMUM WIRE LENGTH (Ft)†		26	26
MAXIMUM FUSE SIZE OR CKT BKR (Amps)‡		15	20
TRANSFORMER (24v)		40va	40va
EXTERNAL CONTROL POWER AVAILABLE	**Heating**	40va	40va
	Cooling	30va	30va
AIR CONDITIONING RELAY		Standard	Standard

* Permissible limits of the voltage range at which the unit will operate satisfactorily.
† Length is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.
‡ Time-delay fuse type is recommended.

Typical installation



Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.